

WHAT IS CLAIMED IS:

1. A thin-film magnetic head assembly comprising:  
a core block provided with a sliding surface which  
5 slides over a medium, the core block comprising a  
magnetoresistive element disposed adjacent to an insulating  
layer;  
a base plate on which the core block is mounted;  
an insulating junction substrate mounted on at least one  
10 surface of the base plate; and  
lines connecting the magnetoresistive element to  
terminals disposed on the junction substrate,  
wherein the relationship  $C_{PWB}/C_{MR} < 1.5$  is satisfied,  
wherein  $C_{MR}$  is the capacitance of the core block including  
15 the magnetoresistive element, and  $C_{PWB}$  is the capacitance of  
a section including the junction substrate and the base plate.
2. A thin-film magnetic head assembly according to  
Claim 1, wherein the magnetoresistive element is disposed  
20 between a plurality of insulating layers inside the core  
block.
3. A thin-film magnetic head assembly according to  
Claim 1, wherein the total of the capacitance  $C_{MR}$  and the  
25 capacitance  $C_{PWB}$  is 5 pF or less.
4. A thin-film magnetic head assembly according to  
Claim 1, wherein the total of the capacitance  $C_{MR}$  and the

capacitance  $C_{PWB}$  is 1 to 5 pF.

5. A magnetic recording and playback apparatus comprising:

5 a thin-film magnetic head assembly according to Claim 1;  
and

a rotary cylinder,

wherein the thin-film magnetic head assembly is mounted in a recess formed in the periphery of the rotary cylinder.

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6. A thin-film magnetic head assembly according to Claim 1, wherein the core block comprises:

a pair of core halves, the core halves being joined together; and

15 a built-in layer disposed at the junction between the core halves, the built-in layer comprising the magnetoresistive element, an electrode layer connected to the magnetoresistive element, and insulating layers or shielding layers, the insulating layers or shielding layers sandwiching  
20 the magnetoresistive element and the electrode layer,

wherein the electrode layer is connected to pads disposed outside the built-in layer, and the lines connected to the terminals of the junction substrate are connected to the pads,

25 wherein a capacitance is produced by the magnetoresistive element disposed between the insulating layers or shielding layers in the core block.